tmforum

TM Forum Specification

Service Qualification Management Conformance Profile

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Notice

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INTRODUCTION - API DESCRIPTION

The service qualification API can be used to create and query CheckServiceQualification and QueryServiceQualification. Complete description of this API is available in the user guide.

RESOURCE MODEL CONFORMANCE

API MANDATORY RESOURCES

The following table indicates the mandatory resources for this API.

Resource Name	Comment
CheckServiceQualification	POST operation is mandatory. if POST send 201 code then GET is also mandatory. If POST send a 200 code GET is optional.
QueryServiceQualification	POST operation is mandatory. if POST send 201 code then GET is also mandatory. If POST send a 200 code GET is optional.

GENERAL NOTES ON RESOURCE ATTRIBUTE CONFORMANCE

There are three situations that could occur for an attribute:

- o   Mandatory attribute,
- o   Mandatory attribute if the optional parent attribute is present,
- o   Non-mandatory/Optional attribute. Those are all the other attributes not mentioned in the following subsections. Please refer to the corresponding API REST Specification for more details.

- The tables in the subsections below indicate which attributes are mandatory including mandatory when an optional parent is present.
- Where a resource is an input into an API (e.g. POST, PATCH), Mandatory means that the attribute value must be supplied by the API consumer in the input (and must not be blank or null).
- Where a resource is an output from an API (e.g. GET, POST), Mandatory means that the attribute value must be supplied by the API provider in the output (and must not be blank or null).
- For a sub-resource that is not an array, Mandatory (cardinality 1..1) means that the sub-resource must be present, while Optional (cardinality 0..1) means that the sub-resource may be absent. Mandatory and Optional on the sub-resource attributes apply to the sub-resource if present.
- For a sub-resource that is an array, Mandatory (cardinality 1..*) means that at least one sub-resource must be present in the array, while Optional (cardinality 0..*) means that the array may be absent. Mandatory and Optional on the sub-resource attributes apply to each of the sub-resources if present.

In this table are listed all mandatory attributes. A mandatory attribute MUST be retrieved in resource representation when no attribute selection is used (e.g. GET /../{id}) without any attribute selection

When an attribute is listed with an indentation (in second column) it means this attribute is mandatory if root (parent) attribute is present.

CHECKSERVICEQUALIFICATION RESOURCE MANDATORY ATTRIBUTES

Mandatory attribute when parent is present	Rule
checkServiceQualificationDate	M (in response messages)
href	M (in response messages)
id	M (in response messages)
state	M (in response messages)
serviceQualificationItem	M Array of CheckServiceQualificationItem
serviceQualificationItem.alternateServiceProposal.alternateService.feature.constraint (if present)	Array of ConstraintRef
id	M
serviceQualificationItem.alternateServiceProposal.alternateService.feature (if present)	Array of Feature
featureCharacteristic	M Array of Characteristic
serviceQualificationItem.alternateServiceProposal.alternateService.feature.featureRelationship (if present)	Array of FeatureRelationship
name	M
relationshipType	M
name	M
serviceQualificationItem.alternateServiceProposal.alternateService.place (if present)	Array of RelatedPlaceRefOrValue The place could be pass by ref or by value. If place is pass by reference (@type valued to PlaceRef) id & @referredType attributes must be provided. The @referredType must indicate the place type

Mandatory attribute when parent is present		Rule
		(GeographicSite, GeographicLocation or GeographicAddress) If place is pass by value (@type valued to place type used: GeographicSite, GeographicLocation or GeographicAddress). The place payload must comply with place type used.
	@type	M
	role	M
serviceQualificationItem.alternateServiceProposal.alternateService.relatedEntity (if present)		Array of RelatedEntityRefOrValue The entity could be pass by ref or by value. If entity is pass by reference (@type valued to EntityRef) id & @referredType attributes must be provided. The @referredType must indicate the entity type If entity is pass by value (@type valued to entity type). Entity payload must comply with its own rules.
	@type	M
	role	M
serviceQualificationItem.alternateServiceProposal.alternateService.relatedParty (if present)		Array of RelatedParty The role attribute is not mandatory because the id could be a partyRole id. In this case @referredType must indicate the partyRole (example User, Customer, etc.). If the id is a Party id then a role must be provided.

Mandatory attribute when parent is present	Rule
@referredType	M
id	M
serviceQualificationItem.alternateServiceProposal.alternateService.serviceOrderItem (if present)	Array of RelatedServiceOrderItem
itemId	M
serviceOrderId	M
serviceQualificationItem.alternateServiceProposal.alternateService.serviceRelationship (if present)	Array of ServiceRelationship
relationshipType	M
serviceQualificationItem.alternateServiceProposal.alternateService.serviceRelationship.serviceRelationshipCharacteristic (if present)	Array of Characteristic
name	M
value	M
serviceQualificationItem.alternateServiceProposal.alternateService.serviceSpecification (if present)	
id	M
serviceQualificationItem.alternateServiceProposal.alternateService.supportingResource (if present)	Array of ResourceRef
id	M
serviceQualificationItem.category (if present)	
id	M
relatedParty (if present)	Array of RelatedParty See conditions for RelatedParty at serviceQualificationItem.alternateServiceProposal.alternateService.relatedParty

QUERYSERVICEQUALIFICATION RESOURCE MANDATORY ATTRIBUTES

Mandatory attribute when parent is present		Rule
href		M (in response messages)
id		M (in response messages)
queryServiceQualificationDate		M (in response messages)
state		M (in response messages)
searchCriteria		M
searchCriteria.category (if present)		
	id	M
searchCriteria.service.feature.constraint (if present)		Array of ConstraintRef
	id	M
searchCriteria.service.feature (if present)		Array of Feature
	featureCharacteristic	M Array of Characteristic
searchCriteria.service.feature.featureRelationship (if present)		Array of FeatureRelationship
	name	M
	relationshipType	M
	name	M
searchCriteria.service.place (if present)		Array of RelatedPlaceRefOrValue The place could be pass by ref or by value. If place is pass by reference (@type valued to PlaceRef) id & @referredType attributes must be provided. The @referredType must indicate the place type (GeographicSite, GeographicLocation or GeographicAddress) If place is pass by value (@type valued to

Mandatory attribute when parent is present		Rule
		place type used: GeographicSite, GeographicLocation or GeographicAddress). The place payload must comply with place type used.
	@type	M
	role	M
searchCriteria.service.relatedEntity (if present)		Array of RelatedEntityRefOrValue The entity could be pass by ref or by value. If entity is pass by reference (@type valued to EntityRef) id & @referredType attributes must be provided. The @referredType must indicate the entity type If entity is pass by value (@type valued to entity type). Entity payload must comply with its own rules.
	@type	M
	role	M
searchCriteria.service.relatedParty (if present)		Array of RelatedParty The role attribute is not mandatory because the id could be a partyRole id. In this case @referredType must indicate the partyRole (example User, Customer, etc.). If the id is a Party id then a role must be provided.
	@referredType	M
	id	M
searchCriteria.service.serviceOrderItem (if present)		Array of RelatedServiceOrderItem
	itemId	M
	serviceOrderId	M

Mandatory attribute when parent is present	Rule
searchCriteria.service.serviceRelationship (if present)	Array of ServiceRelationship
relationshipType	M
searchCriteria.service.serviceRelationship.serviceRelationshipCharacteristic (if present)	Array of Characteristic
name	M
value	M
searchCriteria.service.serviceSpecification (if present)	
id	M
searchCriteria.service.supportingResource (if present)	Array of ResourceRef
id	M
serviceQualificationItem	M (in response messages) Array of ServiceQualificationItem See conditions for ServiceQualificationItem at searchCriteria
serviceQualificationItem.category (if present)	See conditions for ServiceCategoryRef at searchCriteria.category
serviceQualificationItem.service.feature.constraint (if present)	Array of ConstraintRef See conditions for ConstraintRef at searchCriteria.service.feature.constraint
serviceQualificationItem.service.feature (if present)	Array of Feature See conditions for Feature at searchCriteria.service.feature
serviceQualificationItem.service.feature.featureRelationship (if present)	Array of FeatureRelationship See conditions for FeatureRelationship at

Mandatory attribute when parent is present	Rule
	searchCriteria.service.feature.featureRelationship
serviceQualificationItem.service.place (if present)	Array of RelatedPlaceRefOrValue See conditions for RelatedPlaceRefOrValue at searchCriteria.service.place
serviceQualificationItem.service.relatedEntity (if present)	Array of RelatedEntityRefOrValue See conditions for RelatedEntityRefOrValue at searchCriteria.service.relatedEntity
serviceQualificationItem.service.relatedParty (if present)	Array of RelatedParty See conditions for RelatedParty at searchCriteria.service.relatedParty
serviceQualificationItem.service.serviceOrderItem (if present)	Array of RelatedServiceOrderItem See conditions for RelatedServiceOrderItem at searchCriteria.service.serviceOrderItem
serviceQualificationItem.service.serviceRelationship (if present)	Array of ServiceRelationship See conditions for ServiceRelationship at searchCriteria.service.serviceRelationship
serviceQualificationItem.service.serviceRelationship.serviceRelationshipCharacteristic (if present)	Array of Characteristic See conditions for Characteristic at searchCriteria.service.serviceRelationship.serviceRelationshipCharacteristic
serviceQualificationItem.service.serviceSpecification (if present)	See conditions for ServiceSpecificationRef at searchCriteria.service.serviceSpecification
serviceQualificationItem.service.supportingResource (if present)	Array of ResourceRef See conditions for ResourceRef at searchCriteria.service.supportingResource

API OPERATIONS CONFORMANCE

For every single resource the following tables includes mandatory operations.

CHECKSERVICEQUALIFICATION MANDATORY OPERATIONS

The following table indicates which ones are mandatory for the CheckServiceQualification resource:

Uniform API Operation
GET
POST

QUERYSERVICEQUALIFICATION MANDATORY OPERATIONS

The following table indicates which ones are mandatory for the QueryServiceQualification resource:

Uniform API Operation
GET
POST

API GET OPERATION CONFORMANCE

All the GET operations in this API share the same status code pattern.

GET operation must be provided only if implementation provided code 201 for POST operation.

GET	Mandatory/Optional
Response Status Code 200 if successful	M
Response Status Code 404 if not found	M

DEFINITIONS FOR FILTER

The following definitions apply to all the GET operations:

- Filtered Search: A filtered search can be applied using query parameters to obtain only the resources that meet the criteria defined by the filtering parameters included in the query request. Several elements can be applied to the filtered search. In that case logic, a logical AND is applied to combine the criteria (e.g.:?severity=<value>&status=<value>).
- Attribute selection (Limiting Response Data): In order to limit which attributes are included in the response, the GET request can include the ?fields= query parameter. Only those attributes whose names are supplied in this parameter will be returned. Attribute selection capabilities are the same for collections retrieval and individual resource queries.
- Level: The filtering and attribute selection can apply to the top level properties (attributes) and subproperties. The tables below show which attributes need to be supported in top-level or contained resources.

GET /CHECKSERVICEQUALIFICATION?FIELDS=...&{FILTERING}

This operation list or find CheckServiceQualification entities

Attribute selection is mandatory for all first level attributes except for the href attribute.

Filtering on sub-resources is optional for all compliance levels

GET /CHECKSERVICEQUALIFICATION/{ID}?FIELDS=...&{FILTERING}

This operation retrieves a CheckServiceQualification entity. Attribute selection is enabled for all first level attributes.

Attribute selection is mandatory for all first level attributes except for the href attribute.

Filtering on sub-resources is optional for all compliance levels

GET /QUERYSERVICEQUALIFICATION?FIELDS=...&{FILTERING}

This operation list or find QueryServiceQualification entities

Attribute selection is mandatory for all first level attributes except for the href attribute.

Filtering on sub-resources is optional for all compliance levels

GET /QUERYSERVICEQUALIFICATION/{ID}?FIELDS=...&{FILTERING}

This operation retrieves a QueryServiceQualification entity. Attribute selection is enabled for all first level attributes.

Attribute selection is mandatory for all first level attributes except for the href attribute.

Filtering on sub-resources is optional for all compliance levels

API POST OPERATION CONFORMANCE

All the POST operations in this API share the same status code pattern.

Implementation could provide 200 or/and 201 to be conformant. If 201 provided, operation GET is mandatory.

POST	Mandatory/Optional
Status Code 201 if resource created	M
Status Code 200 if qualification provided in the response	M

POST /CHECKSERVICEQUALIFICATION

This operation creates a CheckServiceQualification entity.

The following table provides the list of mandatory attributes when creating an instance of the CheckServiceQualification resource, including any possible rule, conditions and applicable default values.

Mandatory Attributes	Rule
serviceQualificationItem	

POST /QUERYSERVICEQUALIFICATION

This operation creates a QueryServiceQualification entity.

The following table provides the list of mandatory attributes when creating an instance of the QueryServiceQualification resource, including any possible rule, conditions and applicable default values.

Mandatory Attributes	Rule
searchCriteria	

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RELEASE HISTORY

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